

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-21 and add new claims 22-45 as follows.

1. – 21. (Canceled)

22. (New) A DNA encoding the protein comprising the amino acid sequence of SEQ ID NO:2, or a protein comprising the amino acid sequence of SEQ ID NO:2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEQ ID NO:2.

23. (New) The DNA of claim 22, wherein the DNA comprises a nucleotide sequence that has not less than 85% homology to the nucleotide sequence of SEQ ID NO:1.

24. (New) The DNA of claim 23, wherein the DNA comprises a protein coding region in the nucleotide sequence of SEQ ID NO:1.

25. (New) The DNA of claim 22, the DNA hybridizing under stringent conditions with DNA comprising a nucleotide sequence of SEQ ID NO:1.

26. (New) A DNA hybridizing specifically with a DNA comprising the nucleotide sequence of SEQ ID NO:1 or with the complementary strand thereof, the DNA having a chain length of at least 15 nucleotides.

27. (New) An antisense DNA against the DNA of claim 24 or a portion thereof.

28. (New) A vector comprising the DNA of claim 22.

29. (New) A vector comprising the DNA of claim 23.

30. (New) A vector comprising the DNA of claim 24.

31. (New) A vector comprising the DNA of claim 25.
32. (New) A transformant expressively carrying the DNA of claim 22.
33. (New) A transformant expressively carrying the DNA of claim 23.
34. (New) A transformant expressively carrying the DNA of claim 24.
35. (New) A transformant expressively carrying the DNA of claim 25.
36. (New) A method for producing a protein, the method comprising:
 - culturing a transformant comprising DNA encoding the protein comprising the amino acid sequence of SEQ ID NO:2, or a protein comprising the amino acid sequence of SEQ ID NO:2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEQ ID NO:2; and
 - collecting an expression product of the DNA in the form of a protein comprising the amino acid sequence of SEQ ID NO:2, or a protein comprising the amino acid sequence of SEQ ID NO:2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEQ ID NO:2.
37. (New) An antibody binding to the protein comprising the amino acid sequence of SEQ ID NO:2, or a protein comprising the amino acid sequence of SEQ ID NO:2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEQ ID NO:2.
38. (New) The antibody of claim 37, wherein the antibody recognizes a protein comprising an amino acid sequence selected from the amino acid sequence of SEQ ID NO:2.
39. (New) The antibody of claim 38, wherein the antibody is a monoclonal antibody.

40. (New) An immunoassay method for measuring protein of SEQ ID NO:2 or a fragment thereof based on immunological binding of an antibody to the protein or a fragment thereof.
41. (New) A reagent for an immunoassay for the protein of SEQ ID NO:2 or a fragment thereof, the reagent comprising an antibody which binds to a protein comprising the amino acid sequence of SEQ ID NO:2, or a protein comprising the amino acid sequence of SEQ ID NO:2 in which one or more amino acids are replaced, deleted, added, and/or inserted, and being functionally equivalent to the protein comprising the amino acid sequence of SEQ ID NO:2.
42. (New) A method for detecting mesangial proliferative nephropathy, the method comprising measuring the protein of SEQ ID NO:2 or a fragment thereof contained in a biological sample and comparing the measured value with that obtained from a normal sample.
43. (New) A transgenic non-human vertebrate in which the expression level of a gene encoding Meg-4 is modified.
44. (New) The transgenic non-human vertebrate of claim 43, wherein the non-human vertebrate is a mouse.
45. (New) The transgenic non-human vertebrate of claim 44, wherein the non-human vertebrate is a knockout mouse in which the expression of a gene encoding Meg-4 is inhibited.